



# We'll handle it from here.

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Every day, more than 36,000 individuals come to work at Republic Services with two purposes in mind: serving our customers safely and doing our part to preserve Our Blue Planet. It's through this unwavering focus that we continue to create a cleaner, safer and healthier world where people thrive — not just for today, but for generations to come. This collective commitment becomes even more important as our business, and our potential to drive change through corporate responsibility, continue to grow.

2018 was a milestone year for Republic Services as our team marked the achievement of our time-bound sustainability goals set in 2014. We added more than 150,000 tons per year of recycling capacity; reduced absolute fleet emissions by three percent through the use of Compressed Natural Gas and Renewable Natural Gas; and brought multiple new landfill gas-to-energy projects online. We also continue to outperform the industry average for Occupational Safety and Health Administration recordable safety rates.

#### **Shaping the Way America Recycles**

Last year also marked the launch of our groundbreaking Recycling Simplified consumer education campaign, which aligns consumer interest in recycling with our desire to reduce contamination in the waste stream and increase material recovery. The Recycling Simplified campaign continues to educate consumers, decrease local contamination rates and increase the amount and quality of materials returned to the economy.

But there's much more to be done to ensure recycling remains sustainable for future generations. I often say you can't have sustainability without profitability, and challenges in recycling commodity markets continue to jeopardize the future of local programs. We're partnering with our municipal customers to transform the business model into one that ensures we make an appropriate return on the capital we invest, and communities are rewarded when their residents recycle properly.

Recycling is essential to our sustainability platform, and we will continue to invest in the business for the long-term.

It remains one of the fastest growing segments of the waste stream, and we're adding cutting-edge equipment and technology in many of our centers across the country. We opened the doors of our newest "Next Generation" processing center in Plano, Texas at the end of 2018, which is already producing higher quality material for reuse while lowering operating costs.

#### **Delivering Value Through Sustainability**

Republic's multifaceted, enterprise-wide sustainability platform continues to revolve around five elements: Safety, People, Operations, Materials Management and Communities. These elements support and enable our business strategy of Profitable Growth through Differentiation. When we manage these elements of our sustainability program, we strengthen the foundation of our business for the long-term and create value for all stakeholders.

This approach played out in 2018, as the Republic team delivered another successful year of growth and strong financial performance, with a deeper commitment to sustainability and the extraordinary work we do to strengthen communities across the country.

#### **Our Blue Planet: 2030 Goals**

We are inspired by the new goals unveiled in this report. They are ambitious by design and may pose challenges that require us to think and act differently if we are to succeed. They may also evolve over time as experts discover more about our planet, technology advances, consumer expectations and behaviors change, and we transform our

business. I believe our team's commitment to innovation and passion for the environment and society will serve as the engines propelling us forward to achieve these seven goals.

After all, this is a team whose efforts resulted in numerous awards and rankings highlighting our sustainability achievements in 2018 — demonstrating our ability to connect financial performance with environmental and social performance. The rankings also highlight Republic's leadership in corporate governance. I have no doubt the high bar we've set for ourselves will continue to distinguish Republic Services from the competition.

We believe we have a responsibility to regenerate our planet with the materials we are entrusted to handle every day, but we can't do it alone. Please join us on this exciting journey toward 2030, because we don't just work for Republic Services and our customers — We work for Earth.®



Chief Executive Officer

# Our Company

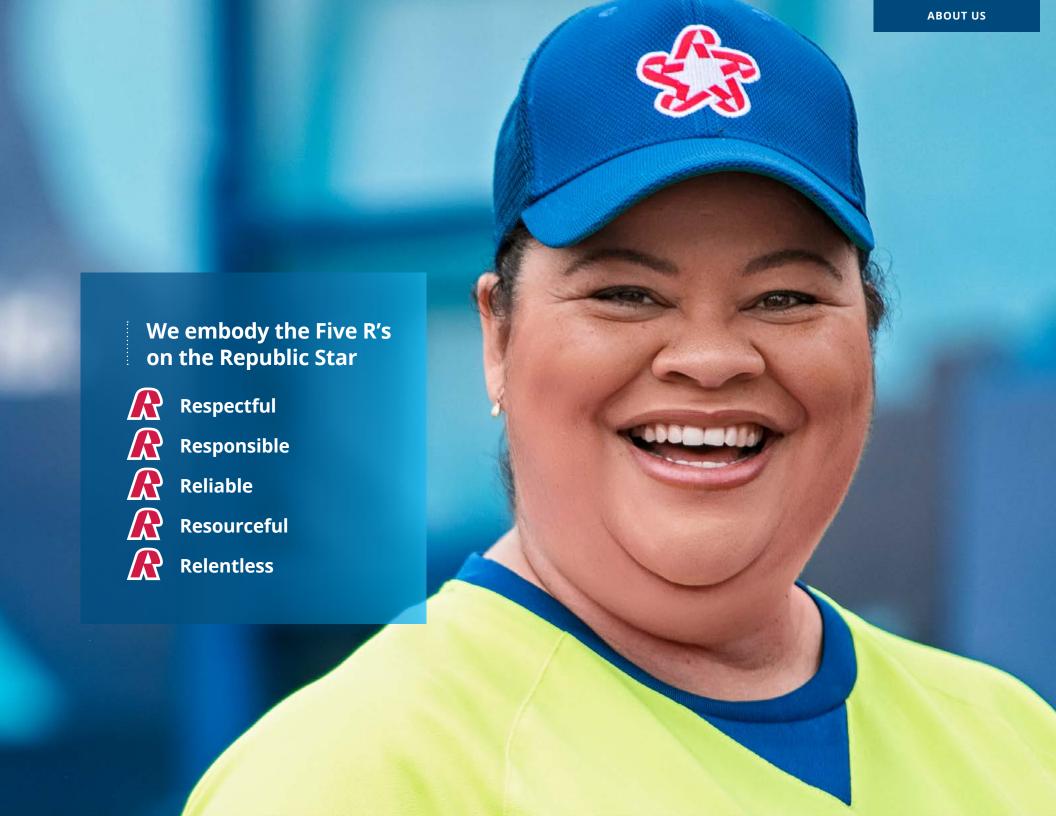
We are an industry leader in recycling and non-hazardous solid waste in the U.S., and our vision is to be America's preferred partner. Our operations focus on providing effective solutions to make responsible waste disposal effortless for our 14 million customers. We'll handle it from here.® is our brand promise. Customers know they can count on us to provide a superior experience while fostering a sustainable Blue Planet for future generations to enjoy a cleaner, safer and healthier world.





# Our Values

By embodying the Five R's on the Republic Star — Respectful, Responsible, Reliable, Resourceful and Relentless — our employees thrive in an atmosphere where safety is our top priority and each person can be a compassionate steward of our Blue Planet. We're committed to more than picking up and handling our country's waste. This is a collective effort to do what's best for our communities, customers, employees, shareholders and the environment — without exception, without fail. It is not a fleeting cause. It is the foundation for our future, and the very heart of who we are as we work every day to protect our Blue Planet.



# Our Blue Planet

We are 36,000 guardians of the environment, striving to make the planet a better place by encouraging increased recycling, generating renewable energy, reducing emissions and helping our customers be more resourceful. We must lead by example, working diligently to continuously improve our relationship with the environment and society through decreased vehicle emissions, innovative landfill technologies, use of renewable energy, community engagement and employee growth opportunities.





**EMPLOYEES** 



**CUSTOMERS** 



36K \* 14M \* 4.9M **PICKUPS PER DAY** 

\$200M+ **IN ACQUISITIONS** 

\$10B **IN REVENUE** 

40%

**BETTER SAFETY PERFORMANCE THAN THE INDUSTRY AVERAGE** 

Based on OSHA recordable rates

**8M TONS OF RECYCLABLES** HANDLED ANNUALLY



markets covering **41 states & Puerto Rico** 

349
HAULING
FACILITIES

75

LANDFILL GAS

& RENEWABLE
ENERGY PROJECTS

SALT WATER
DISPOSAL WELLS

TREATMENT,
RECOVERY
& DISPOSAL
FACILITIES

190
ACTIVE,
MODERN-DAY
LANDFILLS

207
TRANSFER STATIONS



16 K trucks — one of the largest fleets in the U.S.

75%

OF RESIDENTIAL ROUTES AUTOMATED

20%

OF FLEET POWERED BY NATURAL GAS

We're passionate about our role as responsible stewards of our nation's waste. Together, we are leading the way in our industry, receiving notable recognition and rankings for our 2018 sustainability achievements.











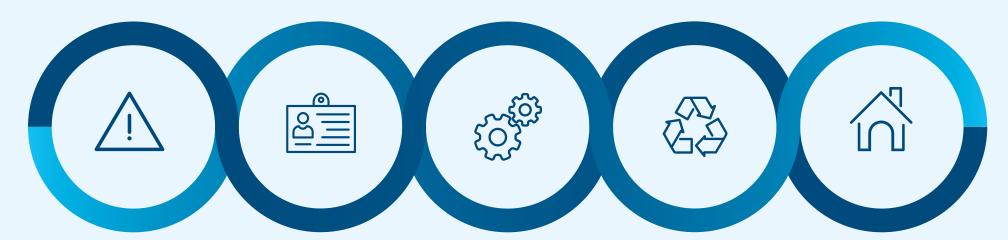






# Five Elements of Sustainability Sustainability of Sustainability o

We announced our sustainability platform in 2014. At that time, we identified five elements of sustainability that are deeply integrated with our business. These elements have stood the test of time and continue to guide our short- and long-term sustainability and business goals.



#### Safety

Nothing is more important than safety. The nature of our business model requires us to be uncompromising on safety. A sustainable planet is only possible if everyone works and lives together...safely.

#### **People**

We believe an engaged and diverse workforce is the greatest indicator of our success. Our people make Republic a preferred place to work and help our communities to be strong and vibrant.

#### **Operations**

With one of the largest fleets in the nation and more than 4.9 million pickups per day, we know it's important for us to continuously leverage technology to reduce emissions while increasing efficiency.

#### Materials Management

Our experience, passion and ethical standards drive us to do more, solve more, innovate more and turn waste into solutions that deliver a valuable product or service while also protecting our planet.

#### **Communities**

Investing in the communities where we live and work is important to us. We provide financial support, volunteer our time and provide in-kind donations to help our communities thrive.





Reduce our Occupational Safety and Health Administration (OSHA) recordable rates by 7% year-over-year

**IN PROGRESS** 



Develop at least two landfill gas-to-energy projects per year by 2018





# **Recycled Commodities**

Add an additional 150,000 tons or more per year of recycling capability by 2018





**Fleet** 

Reduce absolute fleet emissions by 3% from our direct operational impacts by 2018







# **Safety Amplified:**







Engaged Workforce: 88%

Achieve and maintain employee engagement scores at or above 88% by 2030



# **Climate Leadership:**



Reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030 (2017 baseline year)

**★ ALIGNED WITH SBTi**<sup>1</sup> ★



Circular **Economy:**  40%

Increase recovery of key materials by 40% on a combined basis by 2030 (2017 baseline year)

Regenerative **Landfills:** 

50%

Increase biogas sent to beneficial reuse by 50% by 2030 (2017 baseline year)



Charitable Giving: 20 M

Positively impact **20 million people** by 2030

#### **Our Blue Planet: 2030 Goals Materiality Assessment**

We updated our materiality assessment in advance of developing our 2030 goals. This assessment included an analysis of global trends, identification of our business model dependencies and engagement with key stakeholders.

#### **Global Trends**

From climate change and resource scarcity to an evolving workforce and distressed neighborhoods, our Blue Planet continues to evolve. Republic Services is proud to unveil ambitious sustainability goals designed to address many of these global macrotrends, generate long-term value for our stakeholders and mitigate material risks to our business.

In 2015, the United Nations General Assembly set a collection of global goals for the year 2030. These are known as Sustainable Development Goals (SDGs), and they are designed to meet the urgent environmental, political and economic challenges facing our world. We've aligned our new Company sustainability goals with the SDGs that are material to our business and where we foresee the greatest opportunity to create value at scale.

#### **Business Model Dependencies**

Through continuous analysis of our business model, we identify and monitor key dependencies, also known as material capitals, necessary to profitably grow our business over the long-term and create shareholder value. Our material capitals include our employees, our communities, and certain aspects of the environment, economy and society.

Research tells us businesses that manage their material capitals provide better risk adjusted returns and create value for shareholders. We have factored these capitals into our materiality assessment and 2030 sustainability goals. Doing so ensures that we consider our impact on the broader system and create value for all stakeholders — consistent with our business purpose.





#### **Stakeholder Engagement**

We believe ongoing connectivity with key stakeholders is essential if we are to objectively understand the material impacts, risks and opportunities of our business.

From late 2017 through early 2018, Republic Services surveyed more than 20,000 of our stakeholders — including customers, suppliers and residents — asking them to evaluate the importance of, and our performance on, our sustainability topics.

These insights helped inform and shape our 2030 goals, and we will maintain open dialogues on issues related to our sustainability platform as we proceed with program implementation. We believe each new goal has the potential to significantly benefit the environment and society, while enhancing the foundation of our business for the longterm.

#### **Materiality Map**

Our 2030 goals are centered around the most material business risks and opportunities identified though our Materiality Assessment. Our Tier 1 topics include:

- Prioritizing safety
- · Developing an engaged and productive workforce
- · Reducing greenhouse gas emissions from our landfills, fleet and buildings
- Diverting/extracting valuable commodities from the waste stream through recycling and landfill gas beneficial reuse
- Improving the health of the communities in which we live and work

We describe our management approach and provide performance data for each of these Tier 1 topics in our GRI report. The Tier 2 topics that appear on our materiality matrix are addressed with either performance data, management approach or both, also in our GRI Report. We'll be providing information on our Tier 3 topics over time in the interest of transparency and stakeholder responsiveness.

The 2018 GRI Report can be found at RepublicServices.com/Sustainability.

#### **2019 Materiality Assessment Results**

		SAFETY	PEOPLE	OPERATIONS	MATERIALS MANAGEMENT	COMMUNITIES
	TIER	• Fatalities • Safety (GRI 403)	• Employee Engagement (GRI 401)	• GHG Emissions (GRI 305)	<ul> <li>Recycling</li> <li>Biogas         <ul> <li>Capture and</li> <li>Reuse</li> </ul> </li> <li>(GRI 301)</li> </ul>	• Healthy Communities (GRI 413)
More Material	1	8 DECENT WORK AND ECONOMIC GROWTH	8 DECENT WORK AND ECONOMIC GROWTH	13 climate action	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	11 SUSTAINABLE CITIES AND COMMUNITIES
—— Less Material	TIER 2		• Employee Relations	<ul> <li>Fuel Usage (Energy)</li> <li>Air Emissions</li> <li>Leachate Handling</li> <li>Compliance</li> </ul>		Ethics/Breaches     Political     Contributions     Facility Siting
	TIER 3		Diversity     Training     Wellness     Recruitment     Retention     Compensation     Benefits	• Water Use • Materials Used in Operations • Waste Generated • Supply Chain • Groundwater		Physical and     Cyber Security     Community     Resilience

Our materiality assessment helped us hone in on our next generation sustainability goals. We believe each goal has the potential to significantly benefit the environment and society, while enhancing the foundation of our business going forward.

#### **A Commitment to Transparency**

Given the nature of our business — and because we operate at the intersection of local governments, businesses, residents and other stakeholders — we hold ourselves to high transparency standards. So, in addition to highlighting our new goals, this report serves as notice of our intent to increase transparency on other material metrics. This includes data, management description or both for topics important to stakeholders.







The success of our safety program is directly dependent on our people: employees with strong operational know-how, attention to detail and a consistent focus.



Republic's drivers, operators, technicians and other employees make up over 80 percent of our total company workforce — and well over half of our employee population is on the road each day.

#### **Paving the Way for Safer Roadways**

In an industry that ranks as the fifth most dangerous in America, 1 it's critical that safety always tops our list of Company priorities. Distracted driving is becoming one of the most common causes of accidents for our drivers, which can have disastrous results. Our trucks weigh as much as 25 tons when fully loaded. If traveling 60 mph, it will take approximately 312 feet — the length of a football field — to come to a complete stop.

While we can't control everything on the roadways, we will continue to do as much as we can when it comes to safety. This includes working with external partners to help educate the public and other companies about safe driving.





Over the past 10 years, our safety performance has been 40 percent better than the industry average, based on Occupational Safety and Health Administration data.

40%

BETTER SAFETY PERFORMANCE THAN THE INDUSTRY AVERAGE

## Republic Services is taking an ambitious leap forward in safety with a program we call Safety Amplified. Our goals are designed to enhance safety for our employees and the communities we serve.

#### Goal #1

#### **Zero employee fatalities**

It goes without saying that catastrophic events have a significant impact on our employees and their families, as well as the trust our communities have in our brand. Simply put, our goal is zero work-related employee fatalities every year.

These goals support the United Nations "Decent Work and Economic Growth" Sustainable Development Goal, 8.8 — creating a safe and healthy workplace.

#### Goal #2

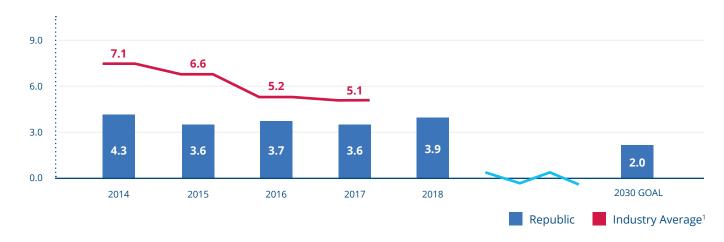
#### **OSHA Total Recordable Incident Rate (TRIR) of 2.0** or less by 20301

Our Safety Amplified initiatives have been developed to continually improve our safety record and reduce incidents. OSHA's TRIR is best-in-class, and we hold ourselves accountable to this metric.

#### **Employee Fatalities**



#### **OSHA Total Recordable Incident Rate**



<sup>1.</sup> Occupational Safety and Health Administration (OSHA) is the main federal agency charged with the enforcement of safety and health standards. The OSHA recordable rate shown is the Total Recordable Incident Rate (TRIR) and is a function of the number of recordable injuries and the total number of hours worked. Published OSHA data lag one calendar year

#### **How We'll Get There**

Safety Amplified provides more tools and drives greater awareness to help our teams better execute our safety standards.<sup>1</sup> Continual training, multifaceted programs and strategic partnerships are the key components of our platform. It's simple by design and comprised of actions and activities that ensure safety is embedded in all we do. These six initiatives work in tandem to help deliver the results necessary to achieve our new safety goals.

#### **Focus Together**

This program has helped our drivers reduce six types of serious incidents by 5.5 percent in the past year. We have extended the scope and reach of the program to include employees across the company.





#### **Innovate Together**

We leverage the latest technologies, including automation, and take a data-driven approach to support our employees. These innovations include rear cameras, in-cab backing alarm systems and event recording systems throughout our fleet.

#### **Lead Together**

This focus area brings best-in-class communication channels to our employees and includes communications training for all supervisors and managers.



**INITIATIVES TO ACHIEVE OUR SAFETY GOALS** 



#### **Analyze Together**

We analyze real-time data to make shortand long-term decisions and identify opportunities for improvement. Examples include analysis of roadway awareness training, data mapping and other employee protection and preparedness insights.

#### **Partner Together**

We're initiating more frequent and higher quality leadership visits and interaction with frontline employees.





#### **Celebrate Together**

We take great pride in celebrating employees who demonstrate a relentless commitment to our safety best practices the Dedicated to Safety and Dedicated to Excellence awards are employee favorites!

#### **Positive Impacts of Safety Amplified**

We believe our Safety Amplified goals will deliver additional positive impacts for our Company and stakeholders.



Help preserve our license to operate in our communities



Enhance customer trust



Streamline operational processes and increase productivity



Deliver a reputational advantage, including positioning our Company as an employer-of-choice



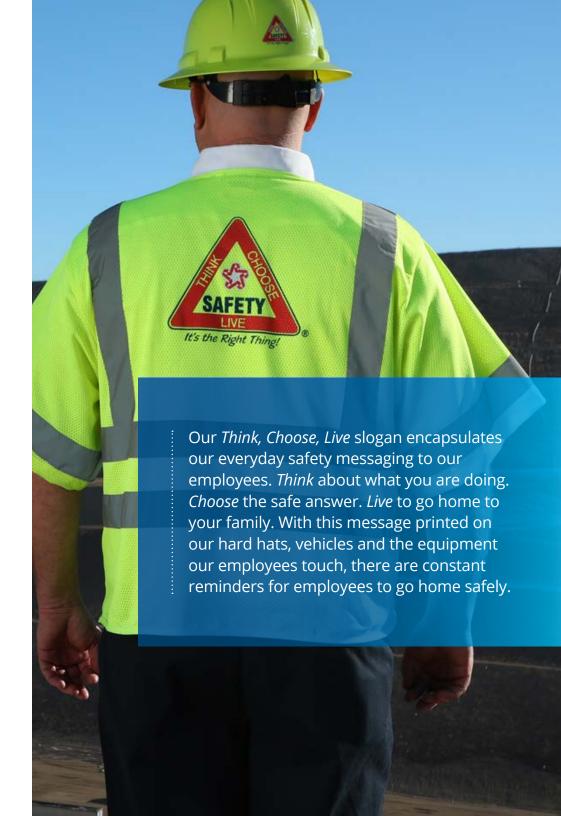
Build and sustain a safety culture in all areas of our business



Contribute to employee engagement

#### CHALLENGE

Unfortunately, many safety features in today's passenger vehicles are not yet available in heavy-duty trucks. We're working with equipment manufacturers to incorporate safety elements such as seatbelt alarms, blind spot awareness, lane departure alarms and other potentially lifesaving equipment in our fleet.





#### A safe, incident-free work environment requires a true commitment to safety — Republic's entire team working together to achieve a common goal. But we know we can't do it alone.

We're proud of our collaboration with partner organizations, including Together for Safer Roads (TSR), a leading coalition of global private sector companies working to improve roadway safety. Republic is the only recycling and waste services member, and we actively work with member companies to achieve a shared vision of fewer road traffic collisions, deaths and injuries.

In 2018, TSR identified a gap in knowledge regarding safety standards, training and federal compliance in smallto mid-sized fleet companies. Republic played a lead role on a task force dedicated to developing standardized procedures and best practices for these companies based on our extensive experience and expertise in this area. As a result, TSR's Safer Fleets initiative will launch later this year, and this vital information will be available at no cost to all U.S.-based small- to mid-sized fleet companies.

#### **Driver of the Year Industry Awards**

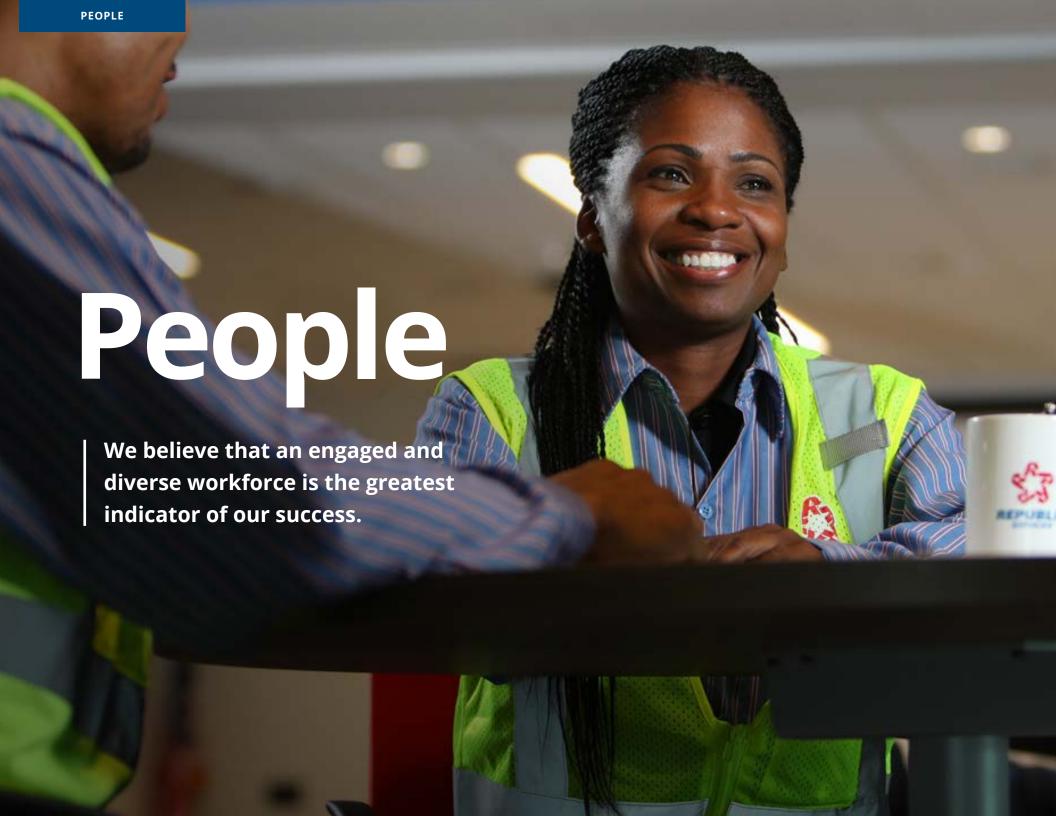
For over 25 years, the National Waste and Recycling Association (NWRA) Driver of the Year program has recognized drivers who uphold the field of recycling and waste collection as an honorable occupation, and conduct themselves and the vehicles they operate in a safe and responsible manner.



Rising to the top out of more than 1,000 driver nominations in 2018, two of Republic's collection drivers — Toribio Gonzalez and Chuck Thorpe — earned the Driver of the Year distinctions in the large industrial and large residential truck categories, respectively, for their remarkable driving skills and safety records on the road.

75%

Republic drivers have won 75 percent of the Driver of the Year awards in the large company category since 2009.

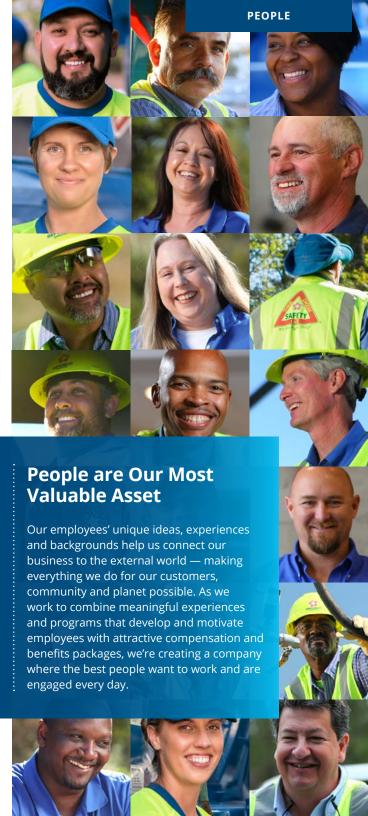


Our people are the heart of our Company. They embody our values, embrace our vision and are united by a shared dedication to our customers, our communities and our Blue Planet — working every day to make the world cleaner, safer and healthier. An engaged, diverse and inclusive workforce — one where our employees use their unique experiences and backgrounds to drive change and differentiation — is essential to our success.

#### **An Evolving Workforce**

The workforce is changing, and we embrace these changes. Thirty-five percent of the labor force is comprised of millennials today, a trend that's expected to increase to 75 percent by 2025. Nearly 80 percent of mature millennials consider a company's social and environmental commitments when deciding where to work.

Additionally, the number of drivers available to meet demand is falling, and the American Trucking Association projects a shortage of 174,000 drivers in the U.S. by 2026.<sup>3</sup> Given the relatively high average age of truckers today, this potential shortage makes our workforce and millennial engagement goals even more important for long-term success as our Company grows.



<sup>1.</sup> https://www.pewresearch.org/fact-tank/2018/04/11/millennials-largest-generation-us-labor-force/

<sup>2. 2016</sup> Cone Communications Employee Engagement Survey

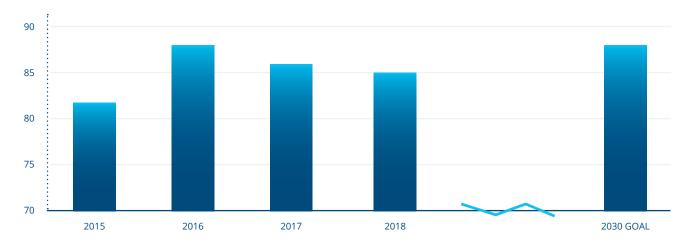
 $<sup>3. \</sup> https://www.trucking.org/article/New \%20 Report \%20 Says-National-Shortage-of-Truck-Drivers-to-Reach-50,000-This-Year Annual Shortage-of-Truck-Drivers-to-Reach-50,000-This-Year National Shortage-Of-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-Drivers-Truck-D$ 

### **Engaged Workforce**

## **Goal: Achieve and maintain employee engagement scores** at or above 88 percent by 2030<sup>1</sup>

Our 2018 employee engagement score was 85 percent, continuing to outperform industry benchmarks.

#### **Republic Employee Engagement Scores**



This goal aligns with the United Nations "Decent Work and Economic Growth" Sustainable Development Goal, 8.5 creating a safe, diverse and equitable work environment.

#### Why It's Important

Research shows that companies that score in the top 25 percent in engagement realize a 41 percent reduction in absenteeism. In addition, highly engaged business units see 59 percent less turnover.<sup>2</sup> Perhaps even more important is that engaged employees are paying attention, and they're passionate about their work, their customers and each other. At Republic, Business Units with higher engagement have fewer safety incidents, fewer missed pickups, better environmental performance and are more likely to meet our strategic business objectives.

<sup>1.</sup> High performance best practice norm is equal to or greater than 88% as reported by Willis Towers Watson

<sup>2.</sup> https://www.gallup.com/workplace/231602/right-culture-not-employee-satisfaction.aspx

#### How We'll Get There

We've developed strategic, long-term programs to attract, onboard, develop, engage and retain the best employees. We want all employees, regardless of location, function, level or background, to feel good about the job they do and our Company.

#### Our efforts to increase our employee engagement scores to high-performance norms include:

1. Engagement and retention programs that create a genuine connection with employees, provide competitive compensation and benefits and create an inclusive culture where all employees have a voice.

For example, our We work for Earth employee engagement campaign reinforces our commitment to being an inclusive employer of choice. We're educating employees on sustainability, elevating their sense of pride in their work and improving engagement.



2. Learning and talent development programs aligned with business outcomes, experiential new employee onboarding and investments in high-potential, high-performing talent.

Programs such as Driver Training Center, Supervisor Onboarding and Sales Acceleration provide the fundamental skills each employee needs to succeed in his or her role. Our Leadership Fundamentals, Leadership Trainee and General Manager Acceleration programs help ensure that as our leaders progress, they are accumulating the skills necessary to be successful at each level.









# 3. Diversity and inclusion programs focusing on inclusive leadership behaviors and a diverse recruiting strategy.

MOSAIC is Republic's Mission of Supporting an Inclusive Culture. Led by a council of leaders from across the Company, MOSAIC guides our efforts to ensure that diversity and inclusion are always at the core of our culture and business practices. Additionally, we know that leadership in this area starts at the top, and we have demonstrated a commitment to diversity through the people who guide our Company. Seven of the 12 members of our Board of Directors are either women or minorities, a rarity among other organizations of our size.



#### **BUSINESS RESOURCE GROUPS**

Business Resource Groups (BRG) are designed to bring employees who share a commonality together while supporting business objectives by helping solve workplace and industry challenges. Women of Republic was our first company-approved, employee-led BRG. On Veterans Day 2018, we announced plans for our second BRG focused on veterans.

#### A COMMITMENT TO VETERANS

At the same time, we intensified our efforts to hire veterans. Fifty percent of maintenance managers and 25 percent of general managers hired last year self-identified as having served in the U.S. Army, Navy, Marines, Air Force or Coast Guard.

#### PRIORITIZING FEMALE DRIVERS

In 2018, Republic launched SheDrives — a recruitment campaign designed to educate recruiters and hiring managers in an effort to broaden the driver candidate pool and increase the number of women hired for driver positions. In just one year, the hiring rate of women drivers increased by one-third, placing Republic above the national average for female drivers.

#### **Positive Impacts of an Engaged Workforce**

Hiring the best people is crucial to delivering shareholder value, but it's more than just a good business strategy. It's fundamental to who we are. Our employees bring our long-term company values to life, setting Republic apart from the competition. We believe that by achieving our engaged workforce goal, we will:

- Improve our safety record and operating performance
- · Strengthen our customer relationships
- · Reduce costs related to turnover





#### This is How We ROAD-EO

Providing reliable and responsible recycling and waste disposal services for 14 million customers requires the best drivers serving our customers, the best technicians working on our trucks and the best operators caring for our landfills and other facilities. Every year, we invite employees to showcase their driving and diagnostic skills at local ROAD-EO competitions, and invite their family members and co-workers to cheer them on. These competitions are part of Republic's continued commitment to recognizing employees' superior service.



Drivers navigate a timed course while facing obstacles they encounter every day.



Technicians face a series of inspections in which they identify as many vehicle maintenance issues as they can before time runs out.



Heavy equipment operators compete in challenges that test the most common situations they experience daily.



In 2018, we held ROAD-EOs across the country. Winners were ranked at the area level, and 79 finalists were chosen to compete at the 2019 ROAD-EO National Championship in Phoenix.

**132** 

local ROAD-EOs held

2,000

frontline employees competed

10.7K+

family members, including 5K children, attended



From landfills and vehicles to equipment and buildings, we use our assets to provide essential and valuable services to thousands of communities. Yet the operation of these assets has the potential to negatively impact people and the environment. We believe our scale and strength put us in a unique position to provide safe, responsible recycling and waste disposal services while protecting the planet and our communities. The result is long-term value creation for our stakeholders.

#### **Climate Change**

Scientists predict that the greatest physical impacts from climate change will occur if the average global temperature rises beyond 2°C (3.6°F) above pre-industrial temperatures. This means more damage and human toll from hurricanes, wildfires, flooding and droughts, as well as health impacts and food shortages. Given our position, regulatory and market developments related to climate change present us with the potential for strategic business opportunities. Offsetting operational emissions is not enough. We're taking a bold position to leverage innovation and lead the industry in combating climate change.



#### **Greenhouse Gas (GHG):**

A gas that acts to trap heat in the atmosphere. The primary greenhouse gases in Earth's atmosphere are carbon dioxide, methane, nitrous oxide and fluorinated gases.



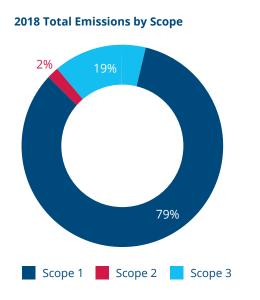


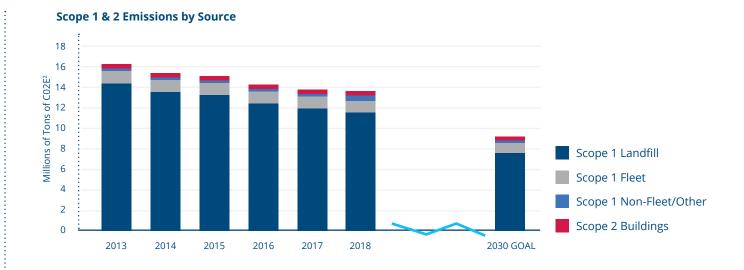
### **Climate Leadership**

# Goal: Reduce absolute Scope 1 and 2 greenhouse gas emissions 35 percent by 2030 (2017 baseline year)

Landfill methane emissions, vehicle and equipment emissions, and building electricity all contribute to climate change. That's why we've adopted an aggressive target for reducing our operational GHG emissions, aligned with the Science Based Targets initiative (SBTi)1.

#### **Our Current GHG Footprint**





This goal aligns with the United Nations "Climate Action" Sustainable Development Goal, 13.2 — reduce greenhouse gas emissions.

<sup>2.</sup> Carbon dioxide equivalents

#### **How We'll Get There**



#### 1. Reducing Emissions Through Landfill Innovation

Our modern landfills are complex, highly controlled biological systems. Our engineers design these structurally stable facilities to ensure we maximize the decomposition of waste in a manner that manages byproducts and minimizes impact to the environment today, and for years to come. Considerable science, engineering and technology go into the design of our landfills — long before they become operational.

We strive to maximize the collection of gas within the landfill to minimize potential fugitive emissions and maintain landfill health. Fugitive emissions are approximately 50 percent methane — a

recognized greenhouse gas. Highly efficient landfills such as ours collect most of this gas for beneficial reuse or processing, turning an impact into an opportunity.\* However, to further manage our fugitive emissions and meet our goal, we'll be looking at new technology and operating practices while ensuring that landfills remain stable and secure for decades to come.

\*Details about our Regenerative Landfills sustainability goal can be found on page 42 of this report.

In 2018 we announced a partnership with Mack® Trucks to build and operate a fully electric Mack LR collection truck to help us achieve our ambitious emissions goal. The benefits of fully electric trucks are plentiful:

- Virtually zero carbon emissions
- Reduced maintenance
- Regenerative braking
- Reduced noise
- Fewer overall impacts in the communities we serve

But there are also unique challenges including battery size, weight and recharge time. We believe electrification of our fleet is the future and look forward to learning more when our Mack pilot hits the road in early 2020.

#### 2. Reducing Fleet Emissions

Our recycling and waste collection trucks are complex, highperformance machines designed to be safe, comfortable and efficient. As we retire and replace older trucks, we are able to take advantage of advancements in alternative fuels in addition to safety technology and other modern efficiencies. Trucks running on alternative fuels and renewable natural gas (RNG) emit lower emissions and are less carbon intensive, which is why we continue to transition our fleet toward natural gas.

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In California, more than 90 percent of our Compressed Natural Gas vehicles utilize RNG. which has the lowest carbon intensity of all commercially available fuels — up to 70 percent lower than diesel.1



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#### 3. Reducing Emissions When We Build

Our commitment to sustainable practices extends throughout our operations and into our buildings and facilities. Our new building construction and retrofits adhere to the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) standards. This includes using energy reduction, water conservation measures and the use of sustainable materials and design principles that enhance comfort. With this design philosophy at the forefront of our facility projects, we are making our working spaces more environmentally responsible and productive.

#### **A Continual Evolution**

Simply put, our ambitious target reduction in greenhouse gas emissions is designed to keep the global temperature increase well below 2°C. However, the path we'll take to achieve this goal is anything but simple.

There is no doubt our projects and plans will evolve over the next decade, as we learn more about the environment and leverage new technology and data. While we may see some setbacks along the way, we believe that our Climate Leadership goal is the right thing to do for the environment and our business, and that we have the scale and the team to deliver results. We will be monitoring and measuring a number of advancements related to this goal and sharing results in future reports.

# Our newest recycling center in Plano, Texas features:



Natural light and high-efficiency HVAC equipment, resulting in a forecasted 30 percent reduction of energy use (and utility costs).



Advanced building metering and energy management, delivering accurate, real-time energy consumption monitoring and in-depth reviews of facility energy data.



Higher indoor air quality through an advanced ventilation system, and an "environmental wall" fully separating the tipping floor from the processing area.

#### **Positive Impacts of Climate Leadership**

- Reduces operating costs
- · Minimizes risks to our physical assets
- · Moderates the impact of fuel-price volatility or future carbon tax
- Attracts customers in a low-carbon economy

#### **Operational Transparency**

We are committed to educating our stakeholders on how we manage key operational metrics related to protection of the environment beyond greenhouse gas emissions.

Republic's local landfill teams are responsible for maximizing the collection of landfill byproducts safely and efficiently within these sophisticated structures. Our operational procedures leverage the latest innovations in landfill equipment and technology to ensure the proper handling of the water, or leachate, and gases that are created by the decomposition of waste.

#### **Liquids Management**

We install extensive systems to draw out the leachate that collects at the bottom of the landfill to safely treat it and return it back to the water cycle for reuse. This practice also prevents impacts to surface water and groundwater resources.

#### **Air Emissions Management**

When beneficial reuse of landfill gas is not an option, our teams adhere to strict operational procedures to thermally destruct gas on-site. The gas flaring process safely destroys any harmful pollutants while significantly reducing greenhouse gas emissions.





One of our greatest responsibilities as a leading recycling and waste company is managing a very complex and diverse waste stream. By extending the life of the materials we handle, we help reduce the environmental and societal burden of the growing use of raw materials. Our experience, passion and ethical standards guide our vigorous pursuit of opportunities to deliver recovered and renewable materials and energy back into the economy.

#### **Strengthening the Circular Economy**

The world's consumption of raw materials is expected to nearly double by the year 2060 as the global economy expands and living standards rise. This dramatic increase would place twice the pressure on the environment than is experienced today. At the same time, some studies estimate that our population currently consumes resources 50 percent faster than they can be replaced.

This means that the resourceful handling of waste and extraction of as much value from the waste stream as possible have never been more important. We handle roughly 115 million tons of material each year, and much of this material still has value prior to being disposed of in a landfill. We are continuously evaluating ways to extract more value from this material using processing and diversion systems and programs. Whether it's through reuse, recovery, refurbishment or recycling — we're actively contributing to a circular economy.



Organization for Economic Cooperation and Development (OECD), 2/12/2019. Global Material Resources Outlook to 2060: Economic Drivers and Environmental Consequences

<sup>2.</sup> GreenBiz, Megatrends that will unleash value in the circular economy, 4/20/2015

We believe our innovative business practices and deep understanding of scalable circular economy solutions will help us accomplish two very ambitious goals related to Materials Management.

#### Goal #1

Circular Economy: Increase recovery of key materials by 40 percent on a combined basis by 2030 (from a 2017 baseline)

The circular economy reduces the need for raw materials, which reduces their associated environmental and social burden. We're invigorating our Circular Economy practices to provide products and services that help reduce the demand our customers and society place on our planet.

#### **MATERIALS OF FOCUS INCLUDE:**

Cardboard (OCC)

Plastics

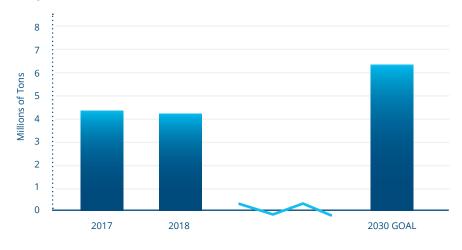
- Metals
- Biogas
- Organics • Oil

#### Goal #2

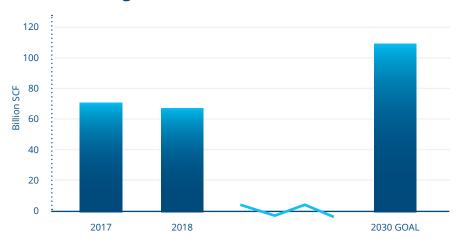
Regenerative Landfills: Increase biogas<sup>1</sup> sent to beneficial reuse by 50 percent by 2030 (from a 2017 baseline)

When food waste, yard debris and other organic materials are disposed of in a landfill, they generate biogas through a naturally occurring biological process. Our modern landfills already capture a large portion of this gas to prevent fugitive emissions. This 2030 goal represents our increased effort to use more of this biogas for beneficial purposes, such as renewable energy and fuel.

#### **Key Materials Recovered**

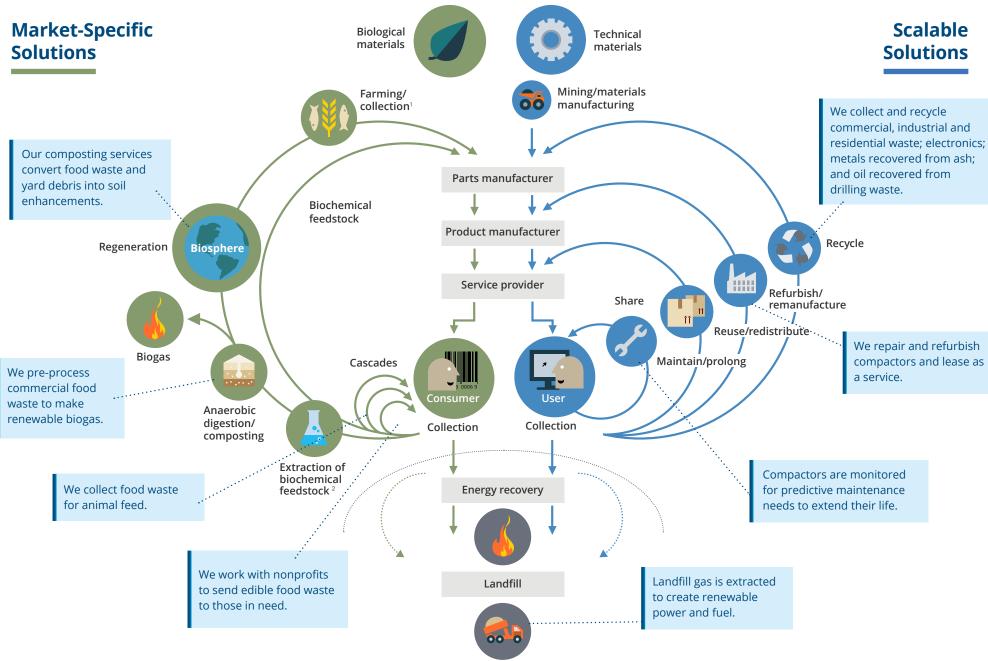


#### **Beneficial Biogas Reuse**



These goals align with the United Nations "Responsible Consumption and Production" Sustainable Development Goal, 12.2 — sustainable management and efficient use of natural resources.

## **Circular Economy Business Solutions**



<sup>1.</sup> Hunting and fishing

<sup>2.</sup> Can take both post-harvest and post-consumer waste as an input

#### **How We'll Get There**

#### **Advancing Innovative, Scalable Solutions**

We have a long history of incorporating technology and innovation to help our customers achieve their sustainability goals, and leverage our scale to deliver value to all stakeholders.

#### 1. Recycling

One area of the circular economy model that we can significantly impact is through our recycling and recovery services.

Our 91 recycling facilities provide the infrastructure and market reach to make a substantial impact on the recovery of valuable materials from the ever-evolving waste stream. We process roughly 6 million tons of recyclable materials per year, making us one of the largest processors of recovered residential and commercial recyclables in the world. By recycling these recovered commodities, we are helping reduce lifecycle greenhouse gas emissions. Today, this amounts to nearly 20 million metric tons of carbon dioxide equivalents (MTCO2e) per year. But the challenge is bigger than greenhouse gas emissions.

The mining and growing of raw materials, combined with the processing, manufacturing and distribution of products from these various materials to markets worldwide, result in a wide range of additional harmful environmental and human health impacts. These include water and air pollution, energy and land use, and habitat destruction. When coupled with the population's increasing global resource consumption, the positive benefits of recycling become even more significant.



We process roughly 6 million tons of recyclables per year.

# Recycling Simplified

One of the biggest challenges we're working to combat is unprecedented levels of contamination in the nation's recyclables. When recyclables are contaminated, the items have no value and must be sent to a landfill. U.S. contamination rates are approximately 30 percent, and much higher in some communities. Our multifaceted Recycling Simplified consumer education campaign launched in 2018 and continues to educate consumers — and decrease contamination rates — across the country, all in an effort to recover more reusable material.

#### **Recycling: Simple as 1-2-3**



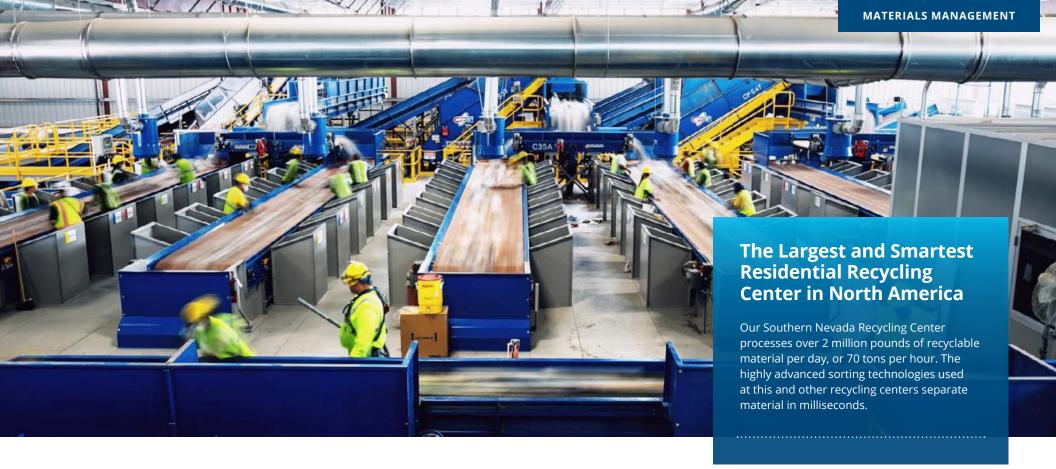
1. Know what to throw Cardboard, paper, metal cans, plastic bottles and jugs



2. Empty. Clean. Dry.® Keep all recyclables free of food and liquid



3. Don't bag it Never put recyclables in containers or bags





#### **Positive Impacts of Our Circular Economy Goal**

By increasing our recovery of key materials by 40 percent, we will:

- · Increase the amount of recovered commodities available for remanufacturing
- · Mitigate the associated negative impacts of virgin materials
- · Reduce upstream impacts of drilling through oil recovery technologies
- · Significantly reduce lifecycle greenhouse gas emissions associated with recovered commodities

#### 2. Beneficial Biogas Reuse

Republic is continuing to explore new and emerging beneficial uses for landfill biogas. We currently operate 75 renewable energy projects at our landfills and brownfields nationwide.

This biogas is used by many commercial, industrial and manufacturing companies for process fuel. It also is utilized in large scale electrical generators, providing baseload renewable electricity for multiple utilities. In addition, we are proud of the progress we're making in converting biogas into a renewable transportation fuel — contributing to a circular economy by powering our Compressed Natural Gas (CNG) collection trucks.

Renewable energy and renewable transportation fuels share many positive environmental attributes and contribute to various renewable and low carbon fuel standards, renewable electrical portfolio standards and carbon cap and trade systems. However, we recognize there's no playbook for innovation, so we continue to explore and support the development of new and emerging beneficial uses for landfill biogas.

For example, we brought a Renewable Natural Gas (RNG) project online with our energy partners at our Southeast Oklahoma Landfill in 2018. At this facility, landfill gas is processed into pipeline quality gas used to power homes and businesses and to fuel natural gas vehicle fleets, including our own trucks.

#### 3. Product as a Service

One of our newest efforts to advance circularity is related to the containers and compactors customers use to hold their waste and recyclables on-site between services.

We leverage three models of circularity to help customers reduce their impact from these products: maintenance, product as a service and refurbish/remanufacture.

By offering these products through a lease program, we can help extend the life of the asset through additional services such as monitoring systems and ongoing preventative maintenance. For example, our compactor refurbishment program extends the life of a 10- to 15-year asset by an additional seven years on average, saving metal and other materials used to build the assets.





#### **Market-Specific Solutions**

Due to the local nature of waste and varied needs of the communities we serve, we often develop solutions for our customers that are applied on a limited basis only. Several of these offerings support circular economy principles, including food rescue, food for animals, composting and pre-processing of organic material for anaerobic digestion.

#### 4. Diverting Food Surplus

As a partner with social services organizations like Food Finders and World Harvest, Republic Services is demonstrating our commitment to a sustainable future by connecting surplus food from commercial grocers to food banks that help feed families in need. In 2018, these efforts hit a significant milestone: 1 million pounds of food recovered, or over 800,000 meals served!

Our employees wondered, could Republic Services take this surplus somewhere it would be quickly consumed? The Los Angeles Zoo provided the answer!

In Southern California, Republic teamed up with local nonprofits to pick up surplus food from restaurants and supermarkets and deliver it to community food banks and soup kitchens. But that's not all. Despite these efforts, there was still surplus fruits and vegetables going to waste.

Our partnership with World Harvest facilitates the distribution of 10 tons of fresh produce every month to feed the zoo's animals. Food that is unable to be distributed to families or animals is sent to our composting facilities where it is turned into a nutrient-rich soil additive.

#### 5. Organics

Organics management continues to be a fast-growing opportunity in select markets. According to the EPA, food waste and yard waste are two of the largest categories of municipal solid waste sent to landfills, accounting for approximately 30 percent of the overall waste stream. Diverting food waste, yard waste and other organic materials to local organics programs creates renewable energy, enhances soil and preserves the nutrient value in these waste streams.

Republic offers pre-processing of commercial organics in California, a process that effectively separates contamination from food waste. This organic material is largely derived from restaurants and grocers and is usually highly contaminated with packaging materials. Once pre-processed, the food waste can be transported to a composting facility or an anaerobic digestion facility to make biogas, or can be used for animal feed in specific situations.

Republic's composting facilities across the country recycle yard and food waste to create natural fertilizer, nutrients and other products to enhance soil.

**1.7B** 

Each year, we collect and compost 1.7 billion pounds (830K tons) of organic waste nationwide.







To be America's preferred recycling and waste services partner, we must first be a good neighbor in all of the communities we serve. And being a good neighbor goes far beyond delivering superior customer service and environmental compliance. It requires a commitment to the vitality of the entire community.

#### **Building Stronger Communities**

We live in challenging times, with more than 50 million people, or one in six, living in economically distressed zip codes across the United States.<sup>1</sup> According to the Economic Innovation Group, people residing in these areas experience lower graduation rates, increased incidents of crime, disproportionate health problems and unemployment or underemployment.

Republic Services is committed to helping the communities in which our employees and customers live and work. We believe strong communities create a ready labor pool, drive housing and business growth, and foster a desire for consumers to handle recycling and waste in the most responsible way.







# **Charitable Giving** Goal: Positively impact 20 million people by 2030

The work we do to strengthen neighborhoods across the country is a meaningful reflection of our Company values and commitment to driving long-term change.

We know that people care deeply about making their neighborhoods better and stronger, but they often don't have the tools or resources to bring their ideas to life. Through partnerships with local nonprofits, Republic Services is committed to making a durable and meaningful impact in our communities. As we increase our investments in neighborhood revitalization, we drive long-term value for all of our stakeholders.

This goal aligns with the United Nations "Sustainable Cities and Communities" Sustainable Development Goal, 11.7 — rebuild, restore and revitalize places and spaces in need.

#### **Charitable Giving Growth**

People positively **impacted** 

1.8M→20M

2018

**2030 GOAL** 



#### **How We'll Get There**

Through our charitable giving platform, we support organizations across the country that seek to strengthen the neighborhoods we share. Our contributions vary in form — we provide financial support where it is needed, volunteer our time and provide in-kind donations of products and services in an effort to sustain our planet and make it better for generations to come.

While our primary focus is neighborhood revitalization, we also support nonprofit charitable organizations that demonstrate community impact in the areas of safety, disaster relief and social services.

# The Republic Services Charitable Foundation

In 2018, the Republic Services Charitable Foundation awarded its first grants to nonprofit organizations that are committed to making their local neighborhoods stronger — and we're just getting started. Through our charitable giving platform we support organizations across the country that work to improve the neighborhoods we share.

# Support from Local Business Units

Our local business units across the country are empowered to support local communities in multiple ways, which benefits the specific needs of their customers and the greater community.



#### Our National Neighborhood Promise™

Through our National Neighborhood Promise program, funded by the Republic Services Charitable Foundation, we are making a promise to increase our efforts to help rebuild, revitalize and restore places and spaces where our employees live and work, ultimately creating stronger neighborhoods that sit at the heart of our Blue Planet.

Our focus is on projects and programs within our neighborhoods that can make a lasting impact, including providing critical home repairs, overhauling or building local neighborhood parks and green spaces, safety improvements to school playgrounds, community cleanups of town centers, beautification efforts through planting trees and flowers, and constructing community gardens, to name a few.



# Our commitment to communities includes:

- Grants to nonprofit charitable organizations funded through the Foundation or our local business units
- In-kind contributions of our products and services
- Employee volunteerism





2018 NATIONAL NEIGHBORHOOD PROMISE **GRANT RECIPIENT** 

#### **Rebuilding Together St. Louis**

Rebuilding Together St. Louis focuses on bringing volunteers and communities together to improve the homes and lives of low-income homeowners.

Through National Neighborhood Promise, we provided critical home repairs and community beautification efforts to our senior neighbors in need in St. John, Missouri. Local employees had an opportunity to volunteer with Rebuilding Together to support the program and our neighbors.

#### **Hurricane Relief**

We work for Earth, and that means caring for communities in need when disasters strike. As always, our first priority is our people, and then our assets and customers. This prioritization makes sure our people are safe and taken care of, which in turn, positions us to best support our customers and communities.

The 2018 Atlantic hurricane season will be remembered most for Hurricanes Florence and Michael, which caused significant damage in the Southeast. Republic Services' long-time partnership with the American Red Cross allowed us to support relief and recovery efforts in the area. Our donation helped the organization deliver the following results:



1.6K

**Relief workers** mobilized on the ground

254K+

People fed a nutritious meal 65K

Shelters provided to those displaced from their homes



**Distributed urgent** relief items, including cots, blankets, diapers and hygiene items



Made connections to health and mental health resources for those in need

#### **Positive Impacts of Charitable Giving**

- · Healthy communities are good for our employees, our customers and our business
- · Opportunities for employee involvement drives their connection to our workplace and each other



#### **Supporting Our Employees in Times of Need**

Republic's Employee Relief Fund exists so that employees can help each other in times of need. The fund helps employees who are facing extraordinary expenses, damages or losses as the result of a natural disaster or emergency hardship situation.

#### **Ethics and Compliance**

We are guided by our core values — to be Respectful, Responsible, Reliable, Resourceful and Relentless in all we do, every day. By upholding these values, we maintain a culture of strong ethics and compliance. Our culture allows us to be our best in support of our people, customers, investors and communities and to maintain their trust. We believe that acting ethically and responsibly drives positive change throughout our business and advances our sustainability commitment. We continually work to both represent and expect the highest levels of ethics, compliance and excellence in all areas of our business — not because we have to, but because we want to.



Our Code of Business Ethics and Conduct represents who we are and is the foundation of our shared values and commitment to ethics and compliance. We monitor employee feedback and behaviors to ensure we take all necessary actions to foster and elevate Republic's culture and promote teamwork and trust throughout our business.

Our Human Rights Policy is one example of our core values in action: "Respectful — We value others and demonstrate that in everything we do." This is the standard for our employees, and we expect the same from our business relationships, including our partners and suppliers. Embedded in this value is the commitment to respect human rights — the fundamental rights, freedoms and standards of treatment to which all people are entitled. We reinforce this commitment by conducting business and making decisions in an ethical and responsible manner and require that our practices never infringe on human rights.

#### **Open Lines of Communication**



We encourage all employees to promptly speak up if they have a question, concern, or suspect misconduct. If they are uncomfortable speaking directly to their supervisor, any other member of management or wish to remain anonymous, they have the option to contact the AWARE line, Republic's employee hotline, which is operated by an independent reporting service.

By holding ourselves to the highest standards, we reinforce our commitment to being a socially and environmentally responsible company.



#### **An Ethical Workplace**

Our achievements have been recognized externally, and in 2018, Republic was honored for the second consecutive year by being named to the elite World's Most Ethical Companies® List by the Ethisphere Institute, a global leader in defining and advancing the standards of ethical business practices. Republic is the sole recycling and solid waste services provider to be listed under the Environmental Services category.

The award is based on how companies score in the "Ethics Quotient," a proprietary, quantitative tool developed by Ethisphere that assesses a company's performance in an objective, consistent and standardized manner. It is Ethisphere's belief that global corporations operating with a common rule of law are now society's strongest force to improve the human condition.





# Appendix

To help our stakeholders better understand how Republic Services responsibly manages recycling and non-hazardous solid waste, we have created educational infographics that illustrate and explain the different processes.

#### THESE GRAPHICS DEPICT:

Recycling Operations
Curbside Collections

Organics Diversion
Regenerative Landfill

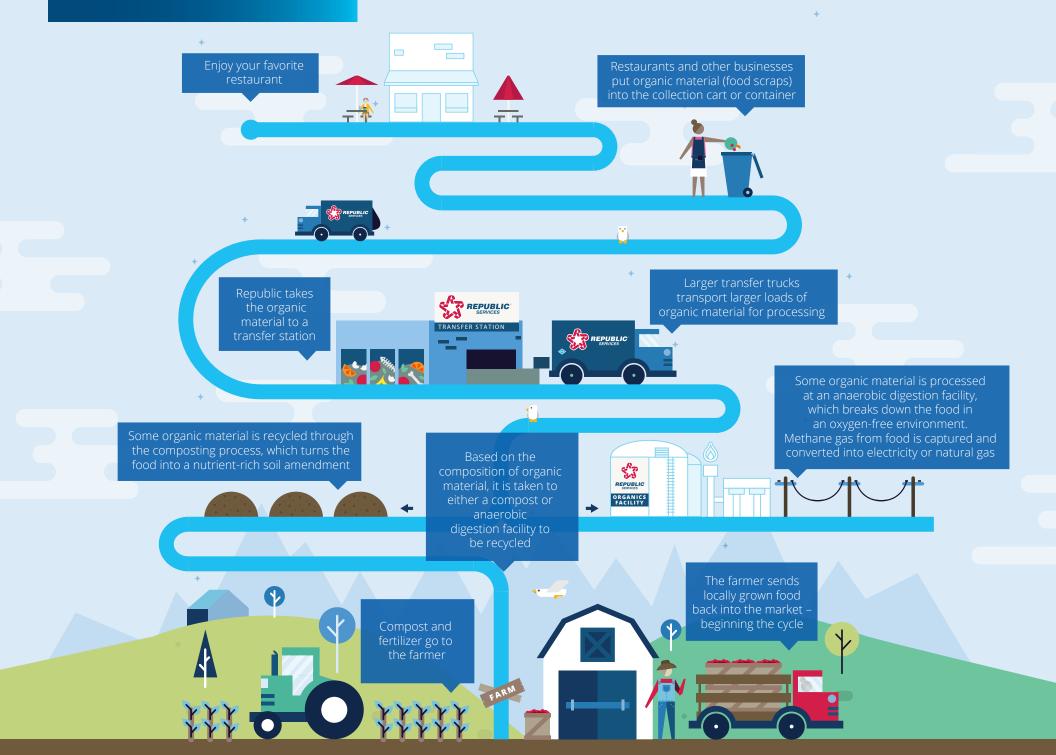
Landfill Gas & Renewable Energy Projects
Energy & Environmental Solutions

# **Recycling Operations**

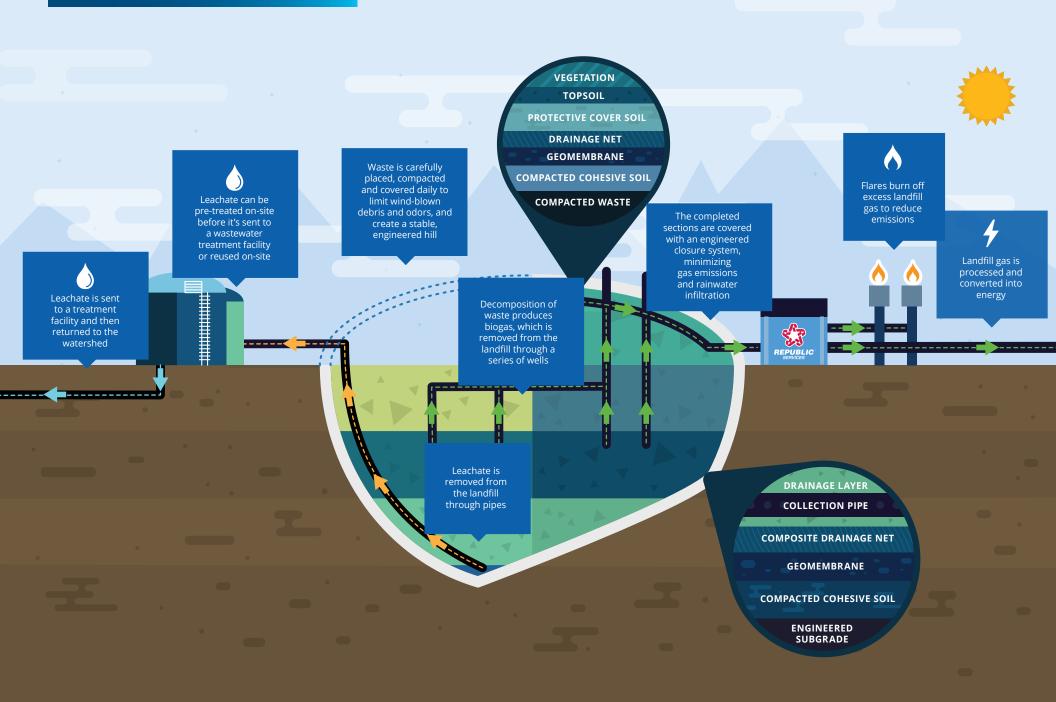


## **Curbside Collections** Our fleet of roughly 16,000 trucks performs 4.9 million Once a collection truck is and homes each day full, it will usually go to a Transfer Station where waste is consolidated. This enables more REPUBLIC SERVICES The consolidated waste is transferred to larger Recyclables go directly to trucks for increased a Recycling Center to be sorted and returned to mills and manufacturers for reuse REPUBLIC® TRANSFER STATION The larger trucks haul waste from the Transfer According to the EPA, Americans generate 4.4 pounds of waste Station to a Landfill, where in many cases, the waste eventually helps to create renewable energy and recycle or compost 1.5 pounds per person per day REPUBLIC SERVICES RECYCLING CENTER

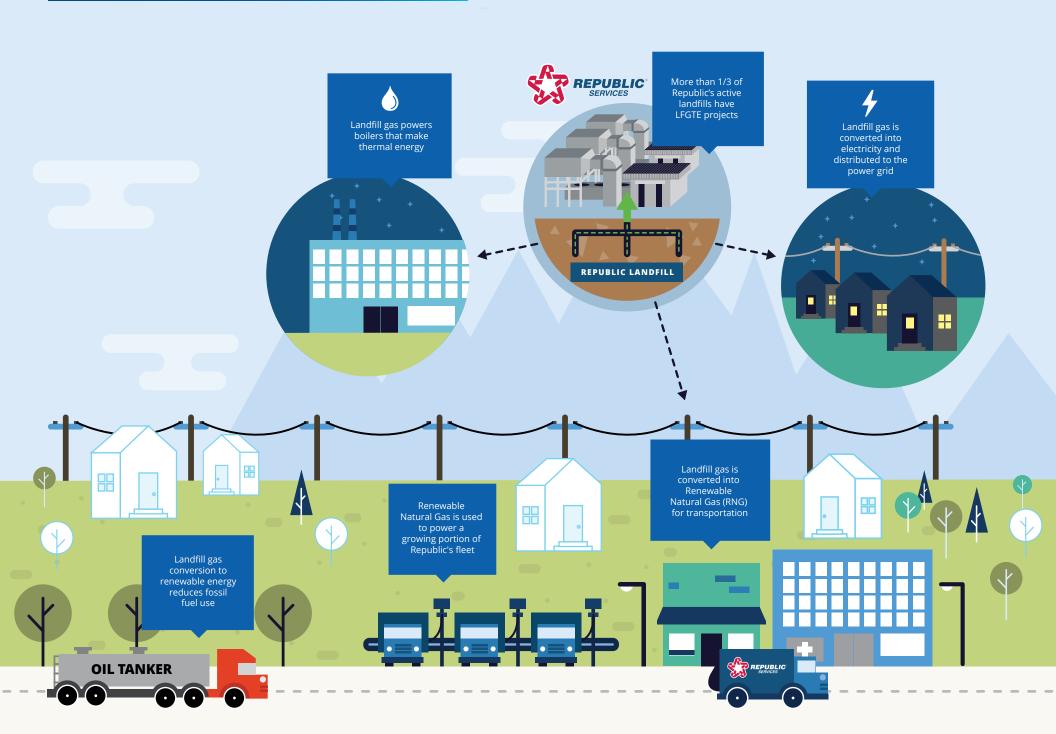
# **Organics Diversion**



# **Regenerative Landfill**



# Landfill Gas-to-Energy (LFGTE)



# **Energy & Environmental Solutions**





STEP 4
Liquids go to
a separation
tank farm

Oil separates from water, sinking to the tank bottom

#### STEP 5

Water is returned to salt water disposal wells, and solids are brought to a lined, specialized cell at the landfill STEP 6
148K barrels
of oil are
recovered and
sold annually



18500 N. Allied Way Phoenix, Arizona 85054 480-627-2700 **RepublicServices.com** 



We'll handle it from here."